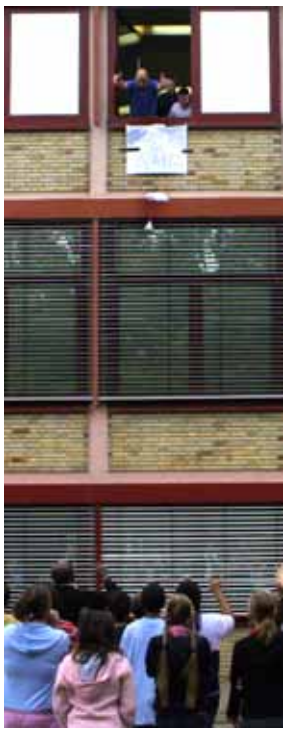
Egg drop

Partnership tool to teach students about engineering combines education, fun

Splat! Albumen, yolk and broken shells covered the pavement, oozing. The ground looked like the aftermath of a blundering cook's attempt to prepare breakfast.

However, this culinary mess was not a display of cooking skills but rather an omelet of engineering talents.

Story by Marisa Richards
Photos by Justin Ward



The Corps of Engineers, Europe District partnered with the Wiesbaden American Middle School in May to test the engineering abilities of the students in the first-ever Egg Drop Challenge. The goal was to teach the students about problem solving, engineering, and team building, said Katie Ergenekon, District volunteer who led the coordination for the event.

The middle school's vice principal, Ken Younkin, said, "It was really interesting ... to see how excited the kids got about it. It was a neat combination of education and fun."

This was the second time this year District engineers volunteered at the middle school. Previously, during Engineering Week in February, employees went to the school to talk about the concept of engineering. This time, however, the engineers led a more hands-on activity.

The students were divided into four-person teams and asked to construct a device that could protect an egg from a 17-foot drop.

But there were limitations that were put on the design and construction of the devices that made things a little more difficult.

First, the devices could only be constructed using a limited amount of Popsicle sticks, paper, string, rubber bands, paper clips, and tape.

Second, the students were advised to

keep their devices small, as excess weight and height could subtract points from their overall score.

Third, the devices had to be constructed to be accurate, as distance from the target was also a limiting factor.

Other than that, they were free to design the device any way they pleased. This included having fun and using the knowledge they learned during Engineering Week about structures.

One 7th grader, Tyler Haner, said he constructed his devise to resemble a triangle because, "the engineers said that the triangle was stronger than the square."

Another student said about the engineers' visit in February: "That stuff you taught us early in the year works."

Of 115 teams that participated, 26 of them successfully completed the two-story drop at the middle school. From there, the surviving devices were carefully carried to the Amelia Earhart Building where they were dropped from the 4th floor. If the egg survived the drop, the device was then taken to the next higher floor and dropped.

The winning device, called "The Eggiis," was constructed by a 7th grade team in Linda McIntyre's

▲ **A student roars in disbelief while witnessing the crash of yet another unsuccessful egg-protecting device during the first day of the two-day egg drop at the Wiesbaden American Middle School.**

▼ **Students proudly line up to prepare their teams' devices for the 17-foot drop out of a window at the Wiesbaden American Middle School.**